

University of Alberta

# FOLIO

20 DECEMBER 1990



*I was in the moon of wintertime  
When all the birds had fled,  
That Mighty Gitchi Manitou  
Sent angel choirs instead.  
Before their light the stars grew dim,  
And wand'ring hunters heard the hymn:  
"Jesus, your King is born;  
Jesus is born; in excelsis gloria!"*

Jean de Brébeuf, credited with writing  
the first Canadian Christmas carol in 1641.



# University ponders budget cuts, reorganization

The University is now considering four structural changes to deal with its budgetary crisis: budget cuts to units over a number of years; closure of units; reorganization of a number of units into single units; and the elimination of vacant positions from units over a number of years or the transfer of vacancies from one unit to another.

President Paul Davenport said early this month, "We believe there is strong consensus in Deans' Council and in the Priorities and Planning Committee, one shared by a great many in our community, on three points.

"Across-the-board cuts destroy excellence; we need to exercise greater selectivity in our annual budget reductions. Preserving excellence in some areas will require that other areas be reduced in size or eliminated.

"Second, the required selectivity can not be achieved with a series of independent annual decisions: we need to plan the allocation of resources over a greater time period than the annual budget year.

"Third, despite the budgetary restraints of recent years, our academic community remains remarkably dynamic and open to new approaches: our academic

units are continually changing and adapting to new circumstances and opportunities, seeking ways to improve the use of existing resources, and to share resources with other units in a manner which reduces unwarranted duplication of effort," the President told Deans, Chairs and Directors, and the Presidents of AAS:UA, NASA and the Students' Union.

Proposals are expected to be tabled in mid-February, and will be considered by appropriate recommending bodies and the Board of Governors.

Meanwhile, in the legislature early this month, Advanced Education Minister John Gogo virtually ruled out the possibility that universities in the province would receive extra money.

"We as a government have determined that the budget shall be balanced by 1991-92, and we are expecting all parts of our society to share in that. Although I'm aware that the institutions are facing some difficulties, I would ask their cooperation in getting the best value for their money in terms of the allocation or reallocation of their resources."

Liberal advanced education critic Yolande Gagnon said the funding crisis in advanced education seems to be worsening on a daily basis. "Not only has this funding crunch caused faculty burnout, large classes, a decline in quality, and forced universities and colleges to close their doors to qualified students, it has led the institutions to acquire significant deficits."

President Davenport predicted that the 1991-92 budget year will be even more difficult than the last. "Despite our severe expenditure reduction in 1990-91, the current estimate of the deficit for 1990-91 is about \$3 million. That is slightly greater than the \$2.1 million in the 1990-91 approved budget. The \$3 million deficit will be paid from the Unallocated Investment Fund, which we estimate will be about \$4 million in market value at March 31 1991 after the 1990-91 deficit is paid.

"While we have only the roughest idea of possible grant and tuition increases, and salary settlements, even relatively optimistic scenarios indicate the need for a reduction in expenditures greater than that realized last year."

"We either have to go into debt or cut back, which literally means reducing our expenditures," said Gerry Glassford, Acting Vice-President (Development and Community Affairs).

President Davenport said, "Our current intention is that our budgetary recommendations to PPC will separate most of our expenditure reduction into two parts: a general across-the-board budget cut, and a selective

elimination of vacancies by each Vice-President for the units in the Vice-President's area. As was the case last year, we will also be suggesting specific selective budget cuts in particular areas," he said, adding that a temporary freeze on filling academic and support staff vacancies has been announced.

The President cautioned that the proposals for structural changes and information on the allocation of internal resources which will be circulated in mid-February are not a substitute for the 1991-92 budget proposals to PPC and the Board of Governors.

NASA President Anita Moore said there's no doubt that the four options on the table for structural changes to the University will have an impact on NASA members. She said if unit heads know the extent of the budget cuts to their units over a number of years, they will be able to plan more effectively. Over time, attrition will have an effect and the impact on people in departments will be minimized, she said.

On the issue of how the University deals with vacancies, Moore said, "I would far sooner see people transferred to other units on campus." Board member John Bertie (Chemistry) said transfers should be an ongoing process and the practice should come to be considered as routine.

"The possibility of closing units disturbs me," said Moore. "There has been a tendency on campus to undervalue people and it isn't until something is gone that we realize how important it was." She said she hoped when decisions were made that a bias favouring academic units over service units would not come into play. Simply cutting service units would not be a quick fix, she said.

Dr Bertie said when cuts are made on an ad hoc basis, it's always going to be easier to cut support staff rather than academic staff. "And I don't think that's fair."

Closing units will have to be looked at very carefully, Dr Bertie said, and the University must now look at what it does very well and what it's embarrassed by and decide what must be cut or reorganized. "I'm encouraged that the University has decided to make tough decisions and selective cuts," he said, adding that the cuts should be done once rather than making incremental cuts to all units over a period of time.

Moore noted that the average length of employment with the University of those people who were laid off during the last round of budget cuts was 10 years. "Morale on this campus is very low and I'm concerned about that." Rumours are running rampant on campus that as few as 50 and as many as 600 jobs will be lost, yet there's simply no basis

for those rumours, she said.

Law Professor Jim Robb, a past President of the AAS:UA, characterized the proposals as "robbing Peter to pay Paul. And obviously, everyone's going to want to play Paul," he said. These options are being considered at a time when morale at the U of A has been deteriorating quite rapidly, he said.

"There's a sense of resignation among the younger academics on campus who may be wondering if they should look elsewhere for positions," he said. The hiring freeze and the image of the U of A across the country as an institution engaged in jettisoning some of its parts will send an ambiguous message at a time

when the recruitment war is going on across North America, he said.

"With a hiring freeze we take ourselves out of the race in a very critical stage of the game."

Dr Glassford said morale is always adversely affected by cuts, but the other thing that affects morale is uncertainty. He cautioned that the President and Vice-Presidents don't have a magic map and the process is going to be very important.

University administrators are hoping that the process will be broadly accepted by the University community. Here's how the process is going to play itself out:

During December and Janu-

Continued on page 3

Photo Services



In the five-year history of the 3M Teaching Fellowships, the University of Alberta has seen eight of its professors awarded the honor, the most of any Canadian university. Last week, the Fellows took a collective bow at a reception in Athabasca Hall. They are: (seated) Lois Stanford (Linguistics) and Roger Beck (Marketing and Economic Analysis), and (standing, left to right) John Kuspira (Genetics), Jim Newton (Accounting), Fred Vermeulen (Electrical Engineering), Manfred Prokop (Germanic Languages) and Graham Fishburne (Elementary Education). Missing from photo: Ray Rasmussen (Organizational Analysis).

## 1991-1992 BUDGET FORUM

10 January 1991  
9 to 11 am (come at any time)  
Myer Horowitz Theatre - SUB

For all University of Alberta faculty, staff and students to discuss the 1991-1992 budget and the process of budget decisions

Bring your questions and concerns to:

Paul Davenport, President

Peter Meekison, Vice-President (Academic)

Lois Stanford, Vice-President

(Student and Academic Services)

Gerry Glassford, Acting Vice-President

(Development and Community Affairs)

Don Bellow, Associate Vice-President (Administration)

For more information call 492-2325



University  
of  
Alberta

## FOLIO

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University  
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# Deans of two largest Faculties say across-the-board cuts have to stop

The Deans of the Faculties of Arts and Science both agree that across-the-board cuts have got to stop at the University of Alberta.

Faculty of Science Dean John McDonald told *Folio* last week, "Across-the-board cuts are devastating to our Faculty; we now have to consider other approaches." Dr McDonald said these kinds of cuts and unplanned cuts, which have happened with "depressing regularity", also erode staff and student morale.

"I agree that across-the-board cuts have worked to the disadvantage of the University," said Dean of Arts Patricia Clements. "The Faculty of Arts cannot continue to function properly with another series of these cuts," she said.

Both Deans said their Faculties' budgets have been steadily declining in relation to the demand on the Faculties over the last decade. Dean McDonald said at the same time enrollments have gone up, government support has eroded.

"There is another reason we're in this difficulty: the University has attempted to be very responsive to large numbers of requests to add programs—many of which are valuable, but the sum total of

which exceeds our ability to adequately provide for them.

"I've always been troubled by the fact that we've developed mechanisms to add programs and add commitments fairly easily—often in response to requests by government and the public—but as an institution we've failed to come to grips with the other process: deleting programs and commitments that no longer have a high priority."

"The Faculty of Arts believes that it's essential for the central administration to take steps of this kind, but I'm only supporting this in the abstract. And like every other member of this community I'm waiting for a blueprint," said Dean Clements. She said the first principle the Faculty of Arts considers crucial is that academic decisions be made by academic units. "There must be real possibilities of input from affected units in the process outlined."

Dean McDonald said he supported the process in general. "I believe if it's done properly, it will allow appropriate consultation before decisions are finalized." Vertical cuts have to be considered carefully, he said. "I don't believe that we can have a

quality institution in teaching and research unless we're prepared to set priorities."

On the issue of faculty members' responsibilities, Dean Clements said they have to understand as much as they can about the situation. They should refrain from overdramatizing, she said, and "remember that we're still in business. In this Faculty, and I'm sure in the other Facul

## FACULTY MEMBERS HAVE TO BE INVOLVED IN DECISION MAKING, DEANS SAY.

ties, we have every intention of getting better. I don't want the budget to be the only thing on the agenda. I want us to remember that we have programs to develop and graduate programs to strengthen."

Dean McDonald said, "When the Deans considered these matters, I argued strongly that these decisions had to involve all faculty members in a meaningful way." The issues will be discussed in departmental councils, at the Faculty level and the University level, he said. "Faculty

members have to be conscious of their responsibilities to help the University make good decisions."

Regarding the criteria proposed by the President and Vice-Presidents for proposing changes to academic units, Dean McDonald said it's a good list (See other budget story). "It should allow us to pay adequate attention to student needs and demands for programs." Dean Clements said, upon reflection, the list should include an additional criterion: major universities require that their curricula have a certain breadth.

Dean Clements said it's possible the process of striking priorities within the institution can have a galvanizing impact and result in a serious, self-examination. She added, however, that she would rather not have to go through this process in this kind of environment, if given a choice.

Dean McDonald said the University has grown so large so quickly that few of its members are aware of what it has. Therefore, the exercise of looking at what the University is doing and whether or not it is duplicating services, may result in finding ways to offer services in a less

costly manner. An increased level of cooperation across department and Faculty lines may also be a positive result, he said.

Both Deans said more effort would have to be put into finding money from sources other than the government. They maintained, however, that the government has to live up to a commitment to maintain and support postsecondary education.

Dean McDonald said, "Let's be fair; this society and province has traditionally been very supportive of universities." The Dean of Science said that his personal priorities for funding within government budgets would place support for postsecondary education in a higher position.

He warned that the Faculty of Science faces a particular problem, though. A study found that the second most important factor in limiting the Faculty's ability to maintain student access was equipment for the laboratories. "Our capital budget is about one-third of what it was about a decade ago, without even considering inflation."

## Budgetary Crisis Continued from page 2

ary, the Vice-Presidents will meet with Deans and unit heads to discuss possible structural changes in their areas.

The criteria to be used in proposing structural changes to academic units will include: academic excellence; relative needs; student enrollment; student demand; alternative sources for particular programs; national prestige; international prestige; academic centrality; quality of service to the community; and the ability to place graduates. For support units, priority will be given to those supporting vital functions for the University.

In mid-February, a nonconfidential "February document" from the President's Executive Committee will propose structural changes to PPC, Deans, Chairs and Directors.

There'll be two parts to that document: Part 1 will deal with specific proposals for consideration by PPC regarding academic and nonacademic units undergoing budget cuts over a number of years; closure of units; and removal of vacancies from units over a number of years.

Part 2 will include a list of possible mergers and other structural changes to academic units. Before specific proposals are put together, the issues in this second part will be referred to a subcommittee of PPC, which will be chaired by the Vice-President (Academic).

Two meetings will be called in the latter part of February to discuss the proposed structural changes. The Deans, Chairs, Directors and presidents and executives of the four associations will be invited to that meeting.

After the Part 1 proposals are circulated, Deans and unit heads of affected areas will be invited to PPC to discuss the proposed changes. Beginning in April or May, formal recommendations will be made to PPC by the President's Executive Committee. If approved by PPC, the recommendations, with the exception of recommendations in the following paragraph, will be forwarded to the Board of Governors.

In cases where proposals for closing units are involved, governed by the GFC policy manual, formal recommendations will first go to PPC, which will consult the Academic Development Committee. Resolutions approved by PPC will be sent to GFC as recommendations.

In Part 2, dealing with the reorganization of units, suggestions will be considered by the PPC subcommittee. That subcommittee will be set by PPC on recommendations from the President and Vice-President (Academic).

"We anticipate that a great number of issues will be before the subcommittee, which will be asked to report its recommendations to PPC as soon as it reaches

them on any particular issues, rather than trying to deal with all the issues at once," the President outlined. "Such recommendations will be made public, and then the process described [for Part 1 proposals] will be followed."

Moore said it was simply too early to pass judgment on the process. She's hopeful the administration will continue to work cooperatively and in an open manner with NASA. Specific recommendations can't be expected until mid-February, she said, so NASA won't come to any overall position on the recommendations until all the information is on the table.

Dr Bertie sees the process as a good one, but the staff has to understand it and contribute through various channels. He predicted that people may feel compelled to protest the decisions, "but if people turn the place into a centre for protest, we could have problems."

Students' Union President Suresh Mustapha said there's no doubt relations are going to be strained between units as the process unfolds. He said the process is likely the best one possible under the circumstances, especially when one considers the campuswide revolt which occurred when the Boreal Institute for Northern Studies was reorganized.

Professor Robb said, "The research literature is quite consist-

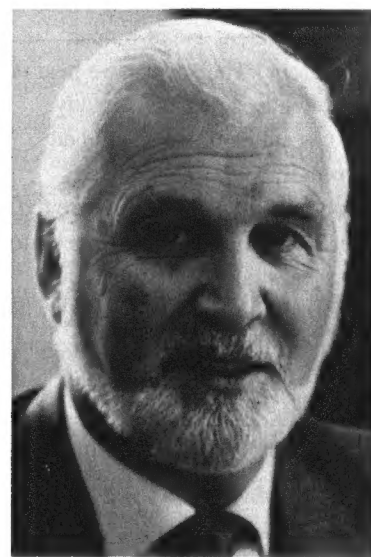
ent: the more you involve people in planning and implementation of change, the more likely it is to be accepted. I think there is very little involvement of academic staff in the planning and implementation.

"It's apparent in the documents of November 23 and 29 [letters from the President and Vice-Presidents which include proposals for the budget process] that the general direction is not going to be debated at General Faculties Council, so that the open forum for discussion is not going to be utilized.

"And that has probably raised some tensions around the campus and could lead to yet another rocky year. That's dependent on the morale of staff. If they're angry, they will get angrier; if they are demoralized, they will simply become more demoralized."

Critical issues, he said, will be the role of PPC, job security, the extent to which unit heads consult with their own people and what happens to academic staff if a unit is closed.

"One does not have any attempt to achieve consensus on what should be jettisoned or if anything should be jettisoned. One of the things that clearly is lost under this is the notion of a university as a place of knowledge. It's going to be much more market-driven," he said, adding that one of the key criteria is, for



Gerry Glassford: Either run deficits or cut back.

example, how successful a program is at placing graduates.

Dr Glassford said there's a lot of merit in a Chinese symbol which includes the concepts of danger and chance or opportunity, and which translates as the ability to "see light in dangerous situations." He said there is now an opportunity for people on campus to do some creative, longer-term thinking about the future of the University.

There's no doubt the University, once it's reconfigured what it now has, will be smaller, said Dr Glassford. "But we may come out of this with a clearer conception of where we're going." This may be an opportunity for people on campus to reexamine the ways in which the University delivers education. There's nothing

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Continued from page 3

magical about 40 students in a class or the set numbers of hours of instruction now used, he said, adding that computer-aided learning, student learning cells and larger classes with outstanding professors equipped with the necessary resources may be options to consider.

Dr Bertie said, "The only thing that worries me is that the University will become increasingly under the power and control of the government." There's a danger that the University's mission will become fixed, limited and more narrow in scope. He said he didn't want the government making decisions which should rightly be made by the University.

One of the great strengths of academics is that they're not willing to take someone else's word for something, but that's also a weakness, Dr Bertie said. When someone is charged with making tough and thankless decisions, it's important that others support that person, he said.

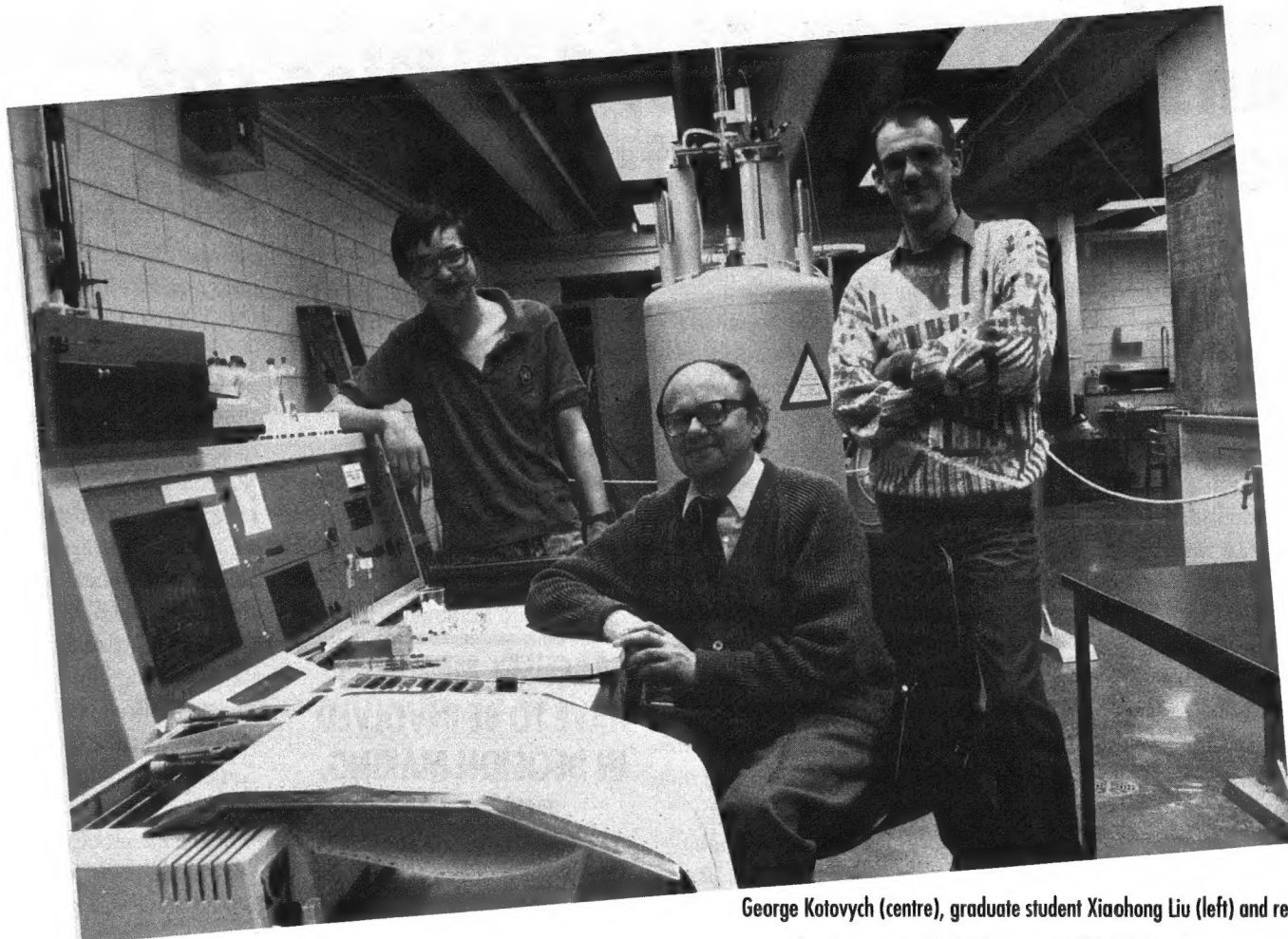
Mustapha said, "As a publicly funded institution, we can't afford to have a private school attitude—but we can't simply become a degree mill for the government either.

"I've asked the question, what are we going to be doing about our inefficient use of human resources? The answer we hear is that 'we're doing this already.' But as students, we've all had professors who, frankly, are incompetent and students are fed up." After fighting just to get into classes, students are then confronted with some professors who are not interested in teaching and who would rather be doing research.

"I can't understand why someone good at research isn't primarily used for doing research and why good teachers can't primarily teach?"

The public's perception is that this University has stressed research over teaching, Professor Robb said, and the University has lost public confidence. It's crucial the University try to rebuild that confidence; Calgarians, unlike Edmontonians, strongly support their own university, he said.

Dr Bertie said the campus community became used to the money coming in from government for roughly 30 years. Then, in the early '80s, after each successive year of cutbacks, people said, "it will be better next year." "But it's time we accepted the fact that this is not going to happen," he said. It's counterproductive to continue to berate the government. It has competing interests vying for the money it spends and it's telling the University "you have \$250 million bucks and if you [the University] can't manage with that, you've got problems."



George Kotovych (centre), graduate student Xiaohong Liu (left) and research associate Albin Otter, in the NMR laboratory. THE NSERC application was coordinated by Dr Kotovych; the MRC application cited PG Scott (Oral Biology) as the principal investigator. Letters of support included those from FM Unger, Chembiomed; Gordon Politeski, Biomira, Inc; and Ron Micetich, SynPhar Laboratories, Inc.

## NUMEROUS PROJECTS ON THE DOCKET

# Chemistry Department acquires NMR Spectrometer

In pursuit of the study of molecular structure in solution, a research area that requires sophisticated equipment, the Chemistry Department has installed a state-of-the-art Varian 500 MHz Nuclear Magnetic Resonance (NMR) Spectrometer. It was purchased with a major installation grant from NSERC for \$550,000, an MRC grant for \$138,600, and \$150,000 from the Chemistry Department, the Faculty of Science, the Vice-President (Research) and the Vice-President (Administration).

Researchers will use the facility to study a wide range of biologically important projects. The work of George Kotovych—he coordinated the NSERC application—and his collaborators involves the structural study of peptides and proteins. Studies have centred on neurotransmitter molecules and tubulin peptides that are involved in the chemistry of the brain, and collagen telopeptides (with PG Scott) that are involved in collagen fibril formation.

Future studies include bradykinin peptides (with John M Stewart, Department of Biochemistry, University of Colorado). Bradykinin is a biologically active peptide which is active in the regulation of every physiological system. Many pathological conditions such as asthma, inflammation, inflammatory joint disease, and pain are characterized by overproduction of bradykinin.

"Bradykinin antagonists offer a key to a better understanding of complex physiology and for the production of effective new drugs," says Dr Kotovych.

The bradykinin analogs to be studied in this project represent a new class of structures which may open the way for development of more effective bradykinin antagonists.

In addition to Drs Kotovych and Scott, the other researchers on the scene are O Hindsgaul, JW Lown, TT Nakashima and JC Vederas (Chemistry).

A study of the biological function of cell surface carbohydrates is under way in Dr

Hindsgaul's laboratory. These complex molecules act as recognition markers in phenomena as diverse as the intracellular targeting of newly biosynthesized glycoproteins and in cell-cell recognition and adhesion. Both chemical and enzymatic methods are being used to prepare oligosaccharide structures for use in biological assays and as inhibitors of glycosylation. Current efforts are aimed at defining the role of tumor-associated carbohydrates in metastasis.

Dr Lown's main areas of research interest are in synthetic and mechanistic studies in biological chemistry of the nucleic acids related to the mode of action of anticancer and antiviral agents. A primary goal is to decipher the polypeptide-DNA molecular recognition code so that one can design and synthesize DNA sequence selective binding agents for therapeutic use and for applications in molecular biology.

Dr Scott's research (supported by MRC) is concerned with collagen and dermatan sulphate proteoglycan, which are proteins found in connective tissues such as skin, bone, tendons, dentine of teeth, etc. Collagen occurs in the tissues as fibrils coated with a layer of proteoglycan molecules. These give body structures mechanical integrity and certain tissues such as cartilage and tendon their characteristic resilience and high tensile strength. NMR is being used to study the three-dimensional structure of the parts of these molecules which are involved in the assembly of fibrils, the guiding hypothesis being that interactions between proteins are dependent on the

shapes of the molecules.

One research area being pursued by the group headed by Dr Vederas is the development of new techniques to determine structures of antimicrobial agents and to analyze metabolic pathways involved in their formation. A large part of this work concerns extensive labelling of the antibiotic substances with stable (nonradioactive) isotopes followed by localization of the positions of label with NMR spectrometry. For example, large antibacterial peptides known as bacteriocins are produced by benign lactic acid bacteria that grow on dairy products or meat and prevent their spoilage. One of the bacteriocins whose three dimensional structure and formation is being analyzed by NMR is nisin A, a nontoxic digestible compound that is used in more than 35 countries for preserving cheese and other milk products, and that has just been approved in the United States.

The structure of another bacteriocin which preserves meat, leucosin, is being investigated in collaboration with Michael Stiles (Food Science) and a graduate student, John Hastings. The knowledge of structure-activity relationships and of biological transformations available from NMR studies suggests chemical methods for improving existing antimicrobial agents and designing new ones.

The NMR Spectrometer is under the supervision of Dr Nakashima and his staff. The official opening of the facility will take place 11 March 1991. Further details of the program will appear in a future issue of *Folio*.





# Cambridge's Ian Fleming to inaugurate Bio-Méga Lecture

Ian Fleming of the University Chemical Laboratory, Cambridge, will present the first Bio-Méga Lecture in the Department of Chemistry (7 January, 11 am, V-107).

The lecture is titled "Stereocontrol in Organic Synthesis Using Silicon Compounds."

Dr Fleming is a synthetic organic chemist known especially for his contributions to methodology based on silicon chemistry. He has published four books and has more than 140 original publications to his credit covering a range of topics—most often in the domain of synthetic methodology, but also including mechanistic studies, structural determination, and the synthesis of natural products.

His fundamental research on the preparation and properties of silicon-containing compounds has served to establish these species as immensely valuable tools for organic chemistry, and he has made many important and enduring contributions in this area—both to preparative techniques and to a mechanistic understanding of reactivity.

Dr Fleming has received numerous awards and has served the chemical community in many ways. For example, he has been a member of the Board of Editors of *Organic Syntheses*, was Deputy Editor-in-Chief of the major work, *Comprehensive Organic Synthesis*, and has acted as consultant in the pharmaceutical industry. His honours include the Tilden

Lectureship (1981), the Royal Society for Chemistry Prize for Synthesis (1983), the Pacific Coast Lectureship, USA (1983), the Backker Lectureship at the University of Gronigen (1984), the Middle Rhine Lectureship (1984), the HC Brown Lectureship at Purdue University (1989), and the Weissberger-Williams Lectureship at Kodak, USA (1990). Among his Visiting Professorships are appointments at McGill, University of Wisconsin, University of Western Ontario, University of Rome, Auckland University, and Harvard.

Dr Fleming was born in 1935 and studied chemistry at Cambridge University, where he received both his BA and PhD degrees. He carried out postdoctoral studies at Harvard in 1963-64 and then returned to Cambridge, where he has held a number of posts as a faculty member. He is currently Reader in Organic Chemistry, Cambridge University, and a Fellow of Pembroke College.

The Bio-Méga Lecture Series was created through the generosity of the pharmaceutical company, Bio-Méga, Inc, Laval, Quebec.

## RESEARCH SERVICES REPLACED

### Two offices are better than one

Speaking of the former Office of Research Services, David Norwood says, "There's a perception out there that the office hasn't been as accessible, as facilitative as it could be. We're trying to reverse that."

Reversal of that perception is a goal shared by Norwood, Director of the Intellectual Property and Contracts Office (IPCO), and by Carl Betke, Director of the Research Grants Office (RGO). The two offices were created earlier this year to replace the Office of Research Services, on the recommendation of the President's Advisory Committee on Campus Reviews (PACCR).

Dr Betke says, "Splitting the office into two parts allows for undivided attention to the services that are supposed to be part of the research grants process." Along with distributing some internal funding (including the Central Research Fund), the purpose of the RGO is to help academics locate research funds and write successful proposals, as well as to ensure that the University's interests—such as overhead costs and ethical responsibilities—are addressed before proposals are submitted.

A priority for Dr Betke is to

work with all academic areas to encourage more and better research applications. He says, "It's important that everybody become involved in developing research proposals, and that's the thrust that we're trying to devote some attention to."

While grants traditionally have been universities' largest source of university research funding (grants brought nearly \$70 million to the University of Alberta in the last year), an increasingly popular alternative is the research contract, in which a company supports research in exchange for certain rights to the intellectual property it generates.

The Intellectual Property and Contracts Office was created to help researchers arrange contracts and negotiate those rights, including patents, licensing, copyrights, and so on. In the past year contracts have brought about \$10 million in research funds to the University, and that figure is expected to grow steadily.

IPCO, Norwood emphasizes, is intended to provide campus-wide service, rather than focusing on technological areas. He says, "It really is intellectual property transfer that we're talking about .... It extends right across the spectrum."

## A retreat with a difference

Feeling adventurous?

The Faculty of Home Economics and the Canadian Circumpolar Institute are sponsoring an Arctic Lifestyles and Winter Survival Weekend Workshop, 11 to 13 January at the Meanook Biological Research Centre (near Athabasca).

Course content includes: building and sleeping in an igloo, learning of northern natives'

relationship with their winter environment, developing and critiquing survival kits, survival foods and traditional travel techniques.

The cost of the workshop is \$70 per person (meals and accommodation included).

Call Patrick Paslawski, 492-5497, or Jill Oakes, 492-3653, for full details.

## The 10th Annual Folio List

The You-Wouldn't-Kid-Us-Award: To Paul Davenport, who told General Faculties Council, "Believe it or not, there's not tremendous competition to get on these committees." (In this instance, he was referring to the GFC Nominating Committee).

● Lecture title of the Year: "Making Connections Between Eco-Feminism, Green Thinking, Animal Liberation, Vegetarianism, and Earth Spirituality."

● Tome of the Year: *A Feminist Companion to Literature in English: Women Writers from the Middle Ages to the Present Day*.

● Acquisition of the Year: A Hamburg Steinway Concert Grand.

● Shopper of the Year: Helmut Brauss, who made the final decision after checking what the Steinway factory in Hamburg had to offer.

● Shipper of the Year: Merrill Distad, who oversaw the move of 9,000 books from the Eric Schloss residence to the Library.

● Nurse of the Year: Shirley Stinson.

● Medical planner of the Year: Denis Burkitt. Speaking at the Cross Cancer Institute, he said, "I've often said that if a community passes small stools, they have to have large hospitals; if they pass large stools they can manage with small hospitals. And if you in the medical profession here in Alberta can double the size of Alberta stools in the next decade, you'd do more for the health of the community than adding wings on to the hospitals."

● Best Dressed Administrator: No award. Budgets being what they are, who's buying clothes?

● Ad hoc committee of the Year: Committee to Save the Library.

● Alumnus of the Year: Richard Taylor.

## WISHES FOR 1991

● The 10 January forum on the operating budget clears the air.

● The Human Rights Office isn't swamped.

● Library hours are stretched.

● The Mission Statement becomes a source of pride.

● Teaching and research strike that just right balance.

● Vice-President (Academic) Peter Meekison gets to spend more time in his office than in court.

● More 3M Fellows for the University.

● Grade A renovations to the Medical Sciences Building.

● Health and happiness to all.

## LETTERS

### OF SCIENTIFIC BALANCE

It may come as a surprise to Margaret Ann Armour, but it has to be said: many scientists and engineers of a male persuasion work in a cooperative way with nature and do not want to "dominate" it. Bacon did not speak for all of us, nor should it be forgotten when his words were coined - at a very early stage in scientific development. All human beings are a complex mixture of emotions with a whiff of rationality, detachment and objectivity which has been developed with a lot of hard work over many centuries. One result has been the development of science. If men have taken the lead in this, it is for many reasons - aggression and domination complexes are not necessary attributes of a good scientist. Good science is often a combination of hard work, intuition and subsequent rational explanation to make it understandable to our feeble intelligence.

Where is the aggression in developing hardy and more bountiful grains to feed human beings? Where is the domination in  $PV = nRT$ ? How is it possible to identify the sex of the originating or user scientist in either case? The process of reductionism is a necessary first step in understanding ... we are incapable of comprehending the complexity of nature in a single step. Integration of basic knowledge is a natural progression, regardless of sex.

It is only somewhat reassuring that Dr Armour is unwilling to become an anti-scientist because science is dominated by males. I have never myself been tempted to be anti-nursing because nursing is dominated at present by females. We will not achieve a "balance" through the attitudes attributed to Dr Armour.

BM Patchett  
Professor of Mining, Metallurgical  
and Petroleum Engineering

### MISSION STATEMENT ILLITERACY

The least requirement for a university administrator should be literacy. To speak of a Mission Statement for the U of A is to display semiliteracy at best. Does replacement of the title "Statement of Purpose" by "Mission Statement", which is a semiliterate fad in the US, point to the many US expatriates in our administration?

The word mission implies sending someone, or being sent, somewhere to accomplish something. The root is latin *missio*, from *missus*, which means sent. Who sent the U of A here?

The word purpose implies an idea or practical result kept before the mind as an end of one's efforts. The root is latin *pro*, which means before or forward, plus *pos*, which is from the verb to put. The U of A was constructed for a purpose.

Gordon Freeman  
Professor of Chemistry



# Mandatory Retirement: 36 people on the bubble

Until such time as the courts make a final determination on the University of Alberta's mandatory retirement policy, staff over the normal retirement age may continue in regular employment.

That's the word from Brian McDonald, Associate Vice-President (Academic Administration).

In 1990-91, there are 26 faculty and 10 support staff who are beyond the "normal" retirement age of 65.

The issue of mandatory retirement at this University came to the fore some five years ago when Olive Dickason (History) filed a complaint against the U of A which had required that she retire at the end of the 1985 academic year. Her complaint came under the Alberta Individual's Rights Protection Act and was directed to the Alberta Human Rights Commission.

A Board of Inquiry ruled that the University could not require that Dr Dickason retire and ordered that she be reinstated as a member of the faculty. That ruling, issued in 1987, was appealed by the University before the Court of Queen's Bench. In October 1988, the court upheld the decision of the Board of Inquiry.

The University then filed notice of appeal of the decision taken by the Court of Queen's Bench but the appeal was not pursued pending a decision by the Supreme Court of Canada on similar cases in B.C. and Ontario.

On the basis of the Supreme Court's recent ruling in favor of mandatory retirement as regards the B.C. and Ontario cases, the University has decided to proceed with its appeal before the Court of Appeal of Alberta, Mr McDonald says.

## Old English meets computerese

The Faculty of Arts is about to assume its place in the computer age.

"Although we're not heavy computational users, as in the hard sciences, we in this Faculty do have sophisticated computer needs," says Terry Butler. He became the Faculty's new Humanities Computing Coordinator last July.

His position was created to assist Arts departments with the development of long-term computer plans, and to locate computer tools that are particularly useful in the humanities.

Computer-assisted language learning is a major thrust of the initiative, as approximately 15,000 student contact hours per week are involved in U of A language courses. Instructional packages are being tested with students in French, Spanish, German, and Russian, and Butler is working with commercial vendors to develop the best equipment alternatives.

He also is finding a wide range of computer programs for other courses, such as one that now lets English literature students explore the cultural

context of Romance writing. Philosophy and Classics instructors are interested in another package that trains students in the interpretation of ancient manuscripts.

Computer-based research tools are Butler's other concern. For example, he has helped bring to U of A users an electronic collection of French-language texts spanning the medieval period through the present, and he is exploring ways to bring in the electronic version of the *Oxford English Dictionary*.

Such databases open entirely new avenues of research. By searching for any term found in the work rather than just for headings, they can locate in a matter of seconds relationships that could take years to discover manually.

It can be argued that the Arts Faculty's commitment to computer technology is coming at the right time. "The fact that we weren't doing this 10 years ago isn't such bad news as it might be," Butler says. "What we can buy now is more impressive than what we could have then, and it really meets the needs we have."

## Students heed leadership call



Photo Services

Peter Lougheed is flanked by (left to right) Randy Boissonnault (political science and history), Karin Buss (law), Shirley Graham (physical education), Anna Zalik (history and political science), Gwen Allison (food microbiology), Jennifer McKercher (speech pathology and audiology), Susan Patrick (biological sciences), Liane Belland (medical lab science), Jennifer Walker (biochemistry) and Karrin Powys-Lybbe (economics). Mr Lougheed presented the scholarships 12 December at the Faculty Club.

The Peter Lougheed Scholarships are the most valuable and prestigious available at the undergraduate level at the University of Alberta. To compete for one, a student must be in the top 10 percent of the class (7.5 grade point average or better) and must have demonstrated leadership abilities.

"They don't come here just to study," said Dianne Kieren, Associate Vice-President (Academic), at a luncheon organized by the Office of Student Awards in honor of the 10 Lougheed Scholars for 1990-91. "The scholarship recognizes people who excel in two areas."

Former Premier Peter Lougheed, after whom the scholarships are named, also spoke of the recipients' intelligence and willingness to get involved with numerous pro-

grams, large and small, on campus and off. For example, one student has worked with chronically ill elderly patients and has tutored adolescents, another is a case-worker with Student Legal Services, still another is vice-president on the board of directors for the National Youth Parliament Association.

Career-wise, the Lougheed Scholars anticipate improving others' lot by bringing their knowledge and skills to bear upon cancer treatment research, human rights and constitutional litigation, cardiac surgery, community development and communications and other fields. It will come as no surprise to the Peter Lougheed Scholarship Selection Committee and the luncheon guests if some or all of the scholarship winners take Dr Kieren's remark—"We're living in a time when we sorely

need leadership"—to heart.

Former President Myer Horowitz created the Peter Lougheed Scholarships in January 1986. Each scholarship is valued at \$5,000 and is renewable for a second year for an additional \$5,000. Ten new awards are available each year.

Mr Lougheed, who is a partner in the law firm of Bennett Jones Verchere in Calgary, said he was pleased that the framework of the scholarship program has been broadened. In 1986 and 1987, Lougheed Scholarships were awarded to Arts and Law students only. Top students in 15 Faculties can now apply for the award.

This year's Lougheed Scholarship winners come from both urban and rural Alberta, and one student is from Windsor, Ontario.



New Democrat Barrie Chivers will represent Edmonton Strathcona, the constituency in which the University is located. He won the byelection last Monday.

## Arts opens instructional computing lab

Computing for the Arts Faculty has taken a major step forward with the opening of an instructional computing lab in B-39 Tory Building. The lab, with 28 powerful IBM-compatible computers, is already heavily used by courses in the Social Science and Humanities divisions of the Faculty. It is also open weekday evenings and on Saturday for student computing access.

As a complement to the lab, a powerful text scanner has been purchased. The Kurzweil scanner is a high-quality, high-speed scanner with sophisticated optical character recognition (OCR) software. The Kurzweil's power comes through the ability to "train" it to read a new type style or font. It has been successfully used to read a variety of materials in several languages, including

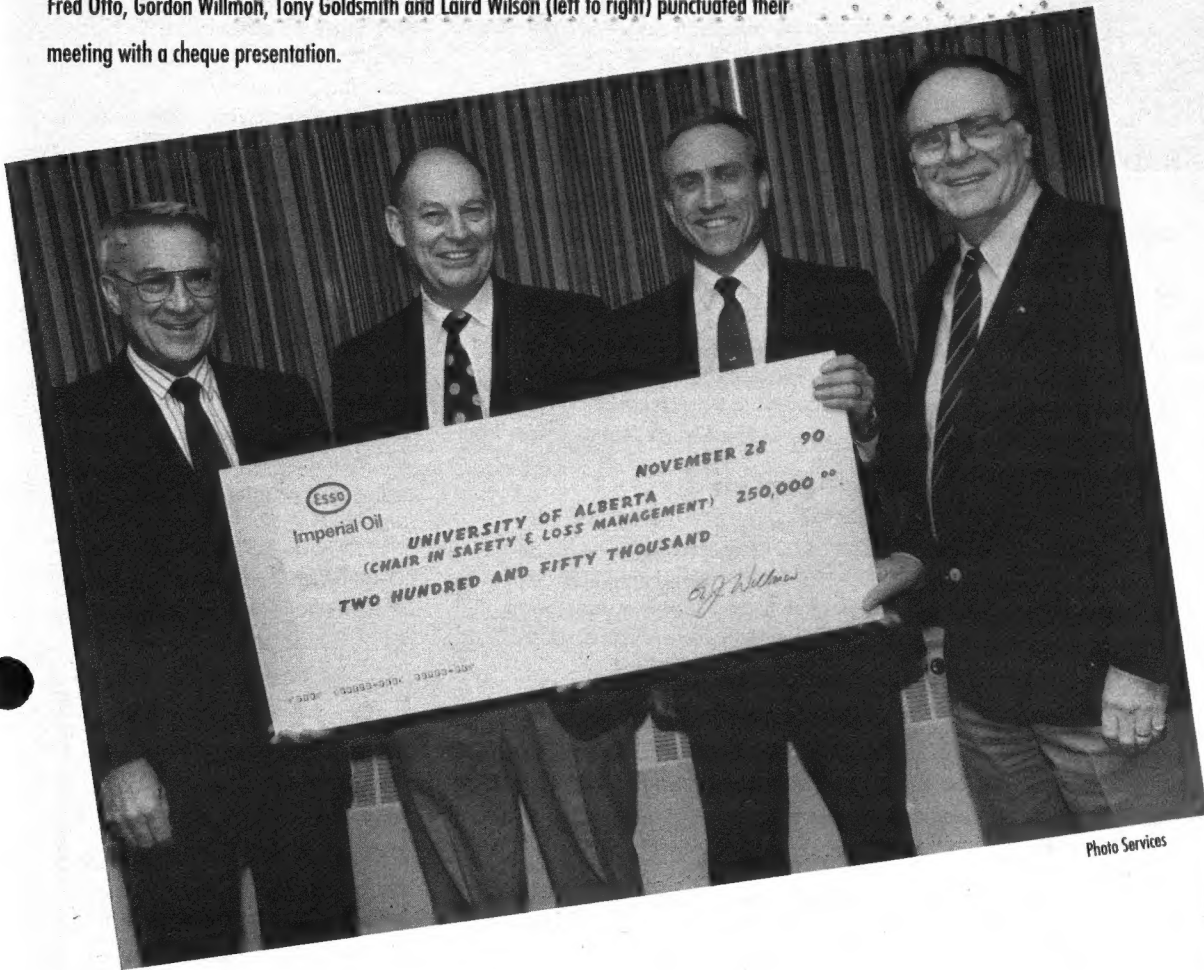
English, French, and German.

A seminar is being offered which will introduce new users to the capabilities of the Kurzweil scanner. The next session is scheduled for Thursday, 3 January, at 3:30 pm in 104 Arts Building; call 492-3272 to indicate your interest. Individual training sessions are also available for new users of the scanner: contact Terry Butler at 492-7570 to arrange a time.

Continuing information about humanities computing will come through a computing newsletter launched this month. To be on the mailing list for *Tools for Humanists*, contact the editor, Terry Butler, c/o Romance Languages, 200 Arts Building. Electronic mail can be sent to T Butler on VM or "Terry Butler" on MTS.



Fred Otto, Gordon Willmon, Tony Goldsmith and Laird Wilson (left to right) punctuated their meeting with a cheque presentation.



## Course instills intolerance for unsafe practices

One valve nudged out of position can result in death and destruction. It's a fact of working life that people in the front lines of the oil and gas business know well. Those who haven't been associated with it personally have seen it all too often on the six o'clock news.

So has Laird Wilson, the instructor of a course in safety engineering and loss management. He can make any number of strong points in class because firms such as Imperial Oil, Shell Canada and Syncrude are only too happy to contribute course content and videos that allow him to build hard-hitting case studies of accidents and then sound out students as to how they would handle the situation.

"Most disasters start from little things. We impress that upon students," says Wilson, who worked with Esso Petroleum for many years and who instituted various safety operations and improvement programs at the Syncrude plant in Fort McMurray. His teaching of fourth year engineering and business students involves approaching them as though they are managers and getting them thinking of three publics—company personnel, contractors and subcontractors and the public at large. With the

support of the industry, he's emphasizing safety (physical harm to people) and loss management (occupational health hazards such as gas leaks and exposure to asbestos, and damage to equipment, the environment and the company's name and assets).

"Significant numbers of engineers and business graduates will attain positions of influence in industry. It's important to provide them with information on industrial safety and loss management before they begin their careers," Wilson says.

Those who took the course and have secured employment in industry have told Mr. Wilson that they become acclimated very quickly and that they feel street smart in the whole area of safety and loss management.

The course attracts an average of 75 students per term including 10-15 percent from the Business Faculty. The 35 lectures per term include about eight guest speakers from industry, government, and labor. Students are taken on five visits to industrial sites.

Wilson and Fred Otto, Dean of the Faculty of Engineering, recently met with Gordon Willmon, Director and Vice-President of Oil Sands and Coal for Esso (based in Calgary), and Tony Goldsmith, Technical

Manager, Drilling and Facilities Division. Besides presenting a pledge of \$250,000 to the Faculty's Chair in Safety Engineering and Loss Management, the visitors spoke of the increase in drilling and refinery mishaps in the United States and the North Sea and said the U of A course could help reduce the number of incidents, any one of which can run into hundreds of millions of dollars.

Dean Otto pointed out that students who have completed the course go to work for smaller companies as well. "Students leave the University with a sensitivity to these needs; they're like missionaries for the course."

There's a cultural aspect to this, a building of an overall understanding, of a way of thinking, Goldsmith said. "Profitability is important but it doesn't come if you don't have a safe, healthy, environmentally secure operation."



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## EVENTS

### TALKS

#### PHYSICS

21 December, 11 am  
Craig Lindberg, Mathematical Sciences Research Center, AT&T Bell Labs, Murray Hill, New Jersey, "How Real is the Greenhouse Effect?" V-129 Physics Building.

#### BIOCHEMISTRY

21 December, noon  
Carol Greider, staff investigator, Cold Spring Harbor Laboratory, New York, "Telomeres and Telomerase." 4-70 Medical Sciences Building.

#### SOIL SCIENCE

3 January, 12:30 pm  
Bob Howitt, Environmental Research and Engineering, Alberta Research Council, "On Travel to Heilongjiang Province." 2-36 Earth Sciences Building.  
17 January, 12:30 pm  
Yongsheng Feng, "Kinematics of Plant Root Elongation." 2-36 Earth Sciences Building.

#### STOMATOLOGY

7 January, 12:05 pm  
W Kim Seow, senior lecturer in pediatric dentistry, University of Queensland, Brisbane, Australia, "Oral Defects in Low Birth Weight Children." 4069 Dentistry-Pharmacy Centre.

#### HUMAN ECOLOGY: ISSUES IN THE CANADIAN NORTH

8 January, 3:30 pm  
Milton Freeman, "Human Ecological Perspectives on the Contemporary Inuit Diet." 207A Law Centre.  
15 January, 3:30 pm  
T Nelson and T Johnson, "Hedonic Tone of Winter and Summer Conditions in Two Cities." 207A Law Centre.

#### HISTORY

9 January, noon  
Richard Connors, doctoral student, Cambridge University, "Reflections on the Growth of Welfare in Mid-19th Century England." 2-58 Tory Building.

#### COMPUTING SCIENCE

9 January, 3:30 pm  
Hang K Du, Department of Computer Science, University of Waterloo, "A Resolvent Method for the Implicitization, Inversion, and Intersection of Non-Planar, Parametric, Polynomial Curves." 619 General Services Building.

#### CONTEMPORARY CULTURAL ISSUES

10 January, 3:30 pm  
Michael Lynch, Department of English, University of Toronto, "Last Onsets: Teaching with AIDS." L-3 Humanities Centre.  
11 January, 4 pm  
Professor Lynch, "Last Onsets: Teaching with AIDS." L-3 Humanities Centre.

#### CANADIAN MEDITERRANEAN INSTITUTE

10 January, 8 pm  
Nicholas Wickenden, "Rare Adventures" in the Renaissance Mediterranean." Gallery 1, Provincial Museum.

#### ENGLISH

11 January, 4 pm  
Michael Lynch, Department of English, University of Toronto, "Queer Theory: Eve Sedgwick's *Epistemology of the Closet* (1990)." L-3 Humanities Centre.

15 January, 3:30 pm  
Literary Theory Series—G Lang, D Read, S Slemon, "Colonial and Post-Colonial Literature." 5-20 Humanities Centre.

#### CHEMISTRY

16 January, 11 am  
JoAnne Stubbe, Department of Chemistry, Massachusetts Institute of Technology, "Ribonucleotide Reductases: Amazing and Still Confusing." V-107 Physics Building.

#### CLOTHING AND TEXTILES

17 January, 11 am  
Patricia Piche, "Designing Contemporary Native Fashion: A Combination of the Past and Present." 115 Home Economics Building.

## ARTS

### EXHIBITIONS

#### MCMULLEN GALLERY

Until 25 January  
"Serendipity"—an exhibition featuring seven Alberta artists. Call for gallery hours: 492-8428 or 492-4211.

#### BRUCE PEEL SPECIAL COLLECTIONS

Until 23 February  
"Women Writing: Five Centuries of Verse and Prose"—an exhibition in celebration of *The Feminist Companion to Literature in English*. Hours: Monday and Friday, 8:30 am to 4:30 pm; Tuesday to Thursday, 8:30 am to 6 pm; Saturday, noon to 5 pm; Sunday, closed.

#### FAB GALLERY

9 to 27 January  
"Staff Shows 1990—Part II"—printmaking, industrial design and visual communication design. Gallery hours: Sunday, 11 am to 5 pm; Monday and Saturday, closed; Tuesday, Wednesday and Friday, 10 am to 5 pm; Thursday, 10 am to 8 pm. 1-1 Fine Arts Building.

## SPORTS

4 January, 7:30 pm  
Hockey—Bears vs University of Lethbridge  
5 January, 7:30 pm  
Hockey—Bears vs University of Lethbridge  
11 January, 6:30 pm  
Basketball—Pandas vs University of Saskatchewan  
11 January, 7:30 pm  
Hockey—Bears vs Brandon University  
11 January, 8:15 pm  
Basketball—Bears vs University of Saskatchewan  
12 January, 6:30 pm  
Basketball—Pandas vs University of Saskatchewan  
12 January, 7:30 pm  
Hockey—Bears vs Brandon University  
12 January, 8:15 pm  
Basketball—Bears vs University of Saskatchewan



## POSITIONS

The University of Alberta is committed to the principle of equity in employment. The University encourages applications from aboriginal persons, disabled persons, members of visible minorities and women.

### SUPPORT STAFF

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, 2-40 Assiniboia Hall, telephone 492-5201. Due to publication lead time and the fact that positions are filled on an ongoing basis, these vacancies cannot be guaranteed beyond 14 December 1990. For a more up-to-date listing, please consult the weekly Employment Opportunities Bulletin and/or the postings in PSSR.

Positions available as of 14 December 1990.

The limited number of vacancies is a result of the current Support Staff hiring freeze.

**ACCOUNTS CLERK** (Grade 6) (Part-Time/Term to 31 March 1991), Drama, (\$1,171 - \$1,460 prorated)

The following positions retain salary rates in accordance with the old classification system and pay plan.

**SECRETARY** (Half-Time/Trust), Biochemistry, (\$839 - \$1,072 prorated)

**ACCOUNTS CLERK** (Part-Time/Trust), Surgical-Medical Research Institute, (\$1,006 - \$1,286 prorated)

**SECRETARY** (Trust), Foods and Nutrition, (\$1,677 - \$2,143)

**MEDICAL STENO** (Trust), Medicine (General Internal), (\$1,677 - \$2,143)

**ACCOUNTS CLERK** (Term to 30 June 1991), Office of the Comptroller (Accounts Payable), (\$1,677 - \$2,143)

**ACCOUNTS CLERK** (Term to 30 June 1991), Office of the Comptroller (General Accounting) (\$1,677 - \$2,143)

**COMPUTER ASSISTANT** (Hourly/Term), University Computing Systems, (\$10.26 - \$13.01/Hour)

**TECHNOLOGIST I** (Trust), Anatomy and Cell Biology, (\$2,143 - \$2,765)

**TECHNOLOGIST III** (Trust), Genetics, (\$2,143 - \$3,018)

**PROGRAMMER ANALYST II** (Trust), Biochemistry, (\$2,537 - \$3,297)

**TECHNOLOGIST IV** (Trust), Medical Microbiology and Infectious Diseases, (\$2,889 - \$3,767)

## ADS

### ACCOMMODATIONS AVAILABLE

**VICTORIA PROPERTIES** - Experienced, knowledgeable realtor with Edmonton references will answer all queries, and send information. No cost or obligation. Call (604) 595-3200, Lois Dutton, Re/Max' Ports West, Victoria, BC.

**SALE** - Two storey and bungalows, walking distance to University. Ron Haddad, Metro City Realty, 454-7020.

**RENT** - Room in private home near University on Saskatchewan Drive. Mature, responsible student/staff. 488-6432, leave message.

**PROFESSIONAL WOMAN** seeking responsible female roommate to share furnished west end house. Near University. No pets. \$300/month plus utilities. Call Helen after 6:30 pm weekdays, 454-6654.

**SHARE HOUSE** - 74 Avenue 106 Street. Female, nonsmoker. Washer and dryer. Rent \$275 plus shared utilities. Available 1 January. Call Ruth at 433-2516 or 422-7333.

**HOUSE TO LEASE** - Windsor Park, 8923 120 Street. \$1,700/month. Large, fully renovated, four bedrooms, 3 1/2 bathrooms, full basement, double garage. Minimum one year. References required. Rand City Realty, Jill, 449-0795.

**RENT** - Old Strathcona, ravine frontage, unfurnished, three bedrooms, two bathrooms, fireplace, garage. \$895/month. Immediate, 439-8630.

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## AWARD OPPORTUNITIES

### TELECOMMUNICATIONS RESEARCH AWARD

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Deadline for nominations: 31 December 1990.

For more information, contact: Telecom Canada, Award Secretariat, Room 1160, 410 Laurier Avenue West, Box 2410, Station D, Ottawa, Ontario K1P 6H5. Telephone: 1-800-267-8160.

### INTERNATIONAL SPACE UNIVERSITY PROGRAM

The Canadian Foundation for the International Space University (CFISU) announces the 1991 summer International Space University Program, which will be hosted by the Moscow Aviation Institution (MAI) in the Soviet Union. Selection criteria and application forms are available at the Office of Student Awards, 252 Athabasca Hall.

Deadline for application: 15 January 1991.

### BRITISH GOVERNMENT SCHOLARSHIPS

The British High Commission in Canada offers 10 scholarships for postgraduate studies only in the general fields of politics, economics, science and engineering. Scholarships will be awarded for one year's study or research at a British university or polytechnic, not necessarily leading to a degree.

Address enquiries to: Sheila Donahue, The British Council, 80 Elgin Street, Ottawa, Ontario K1P 5K7. Telephone: (613) 237-1530 FAX: (613) 237-7980.

### G ALLAN ROEHER INSTITUTE RESEARCH GRANTS

The Institute is offering grants for research in mental disabilities or related fields. Associates, associations and agencies, and students in doctoral programs are eligible for the grants.

Deadline for applications: 30 April 1991. Application forms are available from the Office of Student Awards.

For information on these and other categories of awards, contact: The Secretary, Bursaries and Grants Adjudicating Committee, The G Allan Roeher Institute, Kinsmen Building, York University, 4700 Keele Street, Downsview, Ontario M3J 1P3. Telephone: (416) 661-9611.

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